



Summary

Main Features

ABOUT THIS PUBLICATION

This publication presents a summary of the results from the 2003-04 Household Expenditure Survey (HES), which was a subsample of the households comprising the 2003-04 Survey of Income and Housing (SIH). The HES collected information on the expenditure, income, net worth and other characteristics of households resident in private dwellings throughout Australia.

CHANGES IN THIS ISSUE

The 2003-04 HES and SIH included an expanded range of questions to collect details about income, and for the first time included a comprehensive range of questions to collect details about the assets and liabilities of the household.

Changes in the contents of this issue are:

- the inclusion of household net worth data in most tables, and the introduction of a new table showing expenditure by net worth quintile
- the introduction of equivalised disposable household income as an additional indicator of a household's relative wellbeing when compared to other households of different size and composition
- the replacement of the data item "household composition" with the data item "family composition of household"
- the replacement of the household characteristic "source of income" with "principal source of household income"
- the inclusion of tables showing expenditure on each of the broad expenditure groups as a proportion of total goods and services expenditure
- the restructure of the tables so that they closely resemble the tables in **Household Income and Income Distribution, Australia, 2003-04** (cat. no. 6523.0), facilitating comparison between the two datasets.

Integrating the HES and SIH has resulted in:

- reduced respondent burden
- the HES sample weights being calibrated to the same set of independent demographic benchmarks as the SIH
- the HES sample weights being calibrated to SIH estimates of the number of households by tenure type and SIH estimates of aggregate household income by state and territory and broad source of income
- changes to the definitions of a number of data items, such as income, so that they are identical to the corresponding definitions used in the SIH
- changes to the derivation process used to estimate income tax liability to only use data items available in the SIH.

EFFECTS OF ROUNDING

Where figures have been rounded, discrepancies may occur between sums of the component items and totals. Published percentages are calculated prior to rounding of the figures and therefore some discrepancy may exist between these percentages and those that could be calculated from the rounded figures.

INQUIRIES

For further information about these and related statistics, contact the National Information and Referral Service on 1300 135 070 or Jan Gatenby on Canberra (02) 6252 6174.

SUMMARY OF FINDINGS

HOUSEHOLD EXPENDITURE ON GOODS AND SERVICES - OVERVIEW

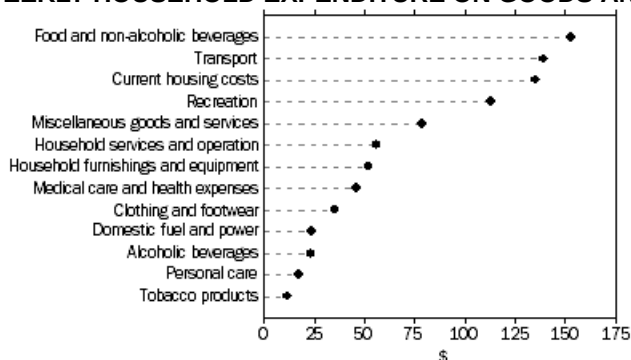
In the 12 months to June 2004, Australian households spent an average of \$883 each week on goods and services. This is an increase of 26% since the previous survey which was conducted in 1998-99. Part of this increase can be attributed to inflation - over the five years since the previous survey, the price of goods and services, as measured by the consumer price index (CPI), rose by 18%. Over the same period, the mean gross household income per week increased by 28% and the average household size decreased from 2.60 people to 2.53 people.

In 2003-04 the largest broad categories of household expenditure were:

- food and non-alcoholic beverages, with average household expenditure of \$153 per week, representing 17% of total household expenditure on goods and services
- transport, \$139 per week, 16% of the total
- current housing costs, \$135 per week, 15% of the total.

As in 1998-99, these categories together accounted for around half of household expenditure on goods and services. The next highest category was recreation, with average weekly household expenditure of \$113 per week, representing 13% of the total.

AVERAGE WEEKLY HOUSEHOLD EXPENDITURE ON GOODS AND SERVICES



DIFFERENCES BETWEEN HOUSEHOLDS

The level and pattern of expenditure differs between households, reflecting characteristics such as income, wealth, household composition, household size and location.

Household Income

Gross household Income

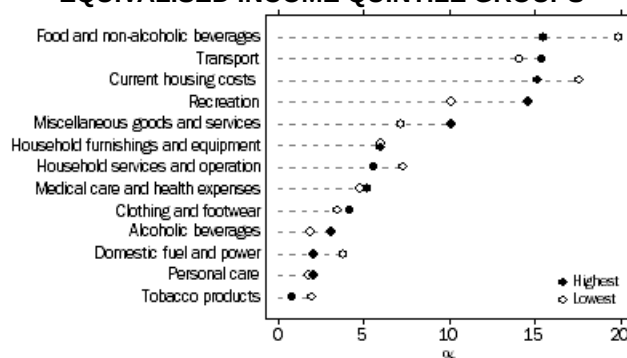
In 2003-04, households in the lowest gross income quintile (the lowest 20% of households when ranked according to gross income) spent on average \$412 on goods and services per week, compared to \$1,484 by households in the highest gross income quintile. This difference in expenditure is partly a consequence of household size: households in the lowest quintile contain on average 1.5 persons, compared to 3.4 persons in households in the highest quintile. Lone person households make up 63% of households in the lowest quintile.

Equivalised disposable household income

Equivalised disposable household income provides an indicator of the relative standard of living of households of different size and composition. The composition of household expenditure differs between equivalised disposable

household income quintile groups. For example, food and non-alcoholic beverages accounted for 20% of the expenditure on goods and services of households in the lowest equivalised income quintile, compared to 16% for households in the highest quintile. In general, the proportion spent on domestic fuel and power, tobacco and household services also declined as equivalised disposable income rose, while the proportion spent on recreation, clothing and footwear, alcohol, personal care and miscellaneous goods and services increased.

PROPORTION OF EXPENDITURE ALLOCATED TO GOODS AND SERVICES BY THE LOWEST AND HIGHEST EQUIVALISED INCOME QUINTILE GROUPS



Household net worth

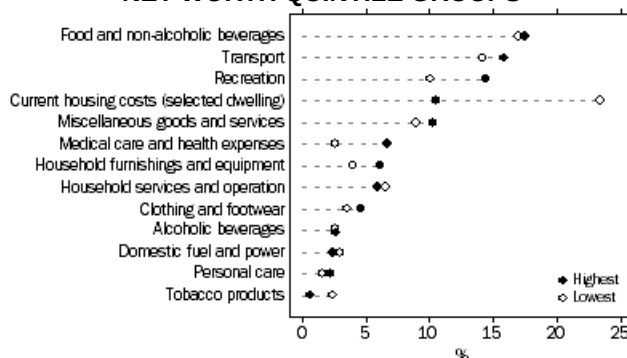
Current housing costs is the broad expenditure group most related to levels of household net worth. Current housing costs comprised 23% of total expenditure on goods and services for households in the lowest net worth quintile but only 11% for households in the highest quintile.

For many households, the dwelling in which they live is the main asset. Households with low net worth are likely to have a high mortgage offsetting the value of the dwelling, or are likely to be renting. They therefore tend to have high housing costs, either in the form of interest payments on their mortgage or in the form of rent. Households with high net worth are more likely to own their own home with only a small or no mortgage outstanding, and therefore only have low housing costs. Only 4.5% of households in the lowest net worth quintile own their own home, compared to 97% in the highest quintile.

Expenditure on medical care and health expenses tends to be substantially higher for households with higher net worth, accounting for 2.6% of expenditure for households in the lowest quintile and 6.7% for households in the highest quintile. In part this may reflect the older ages of persons in the higher quintiles. The average age of the reference person in the lowest net worth quintile is 41 years compared to 55 years for the highest quintile, both quintiles have a household average of 0.6 persons under the age of 18, and the average number of persons 65 years and over is 0.2 in the lowest net worth quintile and 0.4 in the highest quintile.

In general, the proportion spent on recreation, household furnishings and equipment, and clothing and footwear rose as net worth rose, while the proportion spent on tobacco dropped substantially.

PROPORTION OF EXPENDITURE ALLOCATED TO GOODS AND SERVICES BY THE LOWEST AND HIGHEST NET WORTH QUINTILE GROUPS



Social and demographic characteristics

The level and composition of household income and expenditure is highly related to the social and demographic

characteristics of household members. For example, households in the lowest equivalised disposable income quintile were more likely to be lone person households and to rely on government pensions and allowances as their principal source of income. Similarly, households in the highest quintile were more likely to be couple, one family households and to have wages and salaries as their principal source of income.

Households in which the levels of weekly expenditure on goods and services was significantly below the average of \$883 for all households included:

- households which relied on government pensions and allowances as their major source of income, with average weekly expenditure of \$455
- households which rented their dwelling from a state or territory housing authority, with average weekly expenditure of \$408
- lone person households, with average weekly expenditure of \$483
- households in which the reference person was 65 years and over, with average weekly expenditure of \$509.

In contrast, households in which the level of expenditure on goods and services was significantly above the average included:

- households with principal source of income of wages and salaries, with average weekly expenditure of \$1,077
- households purchasing their home (with a mortgage), with average weekly expenditure of \$1,123
- couple, one family households with children; for example households consisting of a couple with their dependent and non-dependent children only, had an average weekly expenditure of \$1,521
- multiple family households, with average weekly expenditure of \$1,390
- households in which the reference person was aged 45 to 54 years, with average weekly expenditure of \$1,066.

Household characteristics can also help to explain the variation in the composition of expenditure. For example, housing costs accounted for only 8% of total expenditure on goods and services of those households who owned their home outright; at the other extreme, households renting from private landlords spent 23% of their total expenditure on housing.

Location

The level of expenditure varied across states and territories. Households in the Australian Capital Territory recorded the highest average weekly expenditure at \$1,052, followed by those in Northern Territory at \$1,038. The lowest expenditure was in Tasmania at \$753 per week.

Expenditure also varied between capital cities and elsewhere. The average weekly expenditure of households located in capital cities was \$938, compared with \$789 in areas other than capital cities. The capital cities with the highest average weekly expenditures were Darwin at \$1,080 per week, Canberra at \$1,052 and Sydney at \$1,022. However, the differences between Darwin, Canberra and Sydney are not large enough to be significant at the 95% confidence level (**see Appendix 2**).

CHANGES SINCE 1998-99

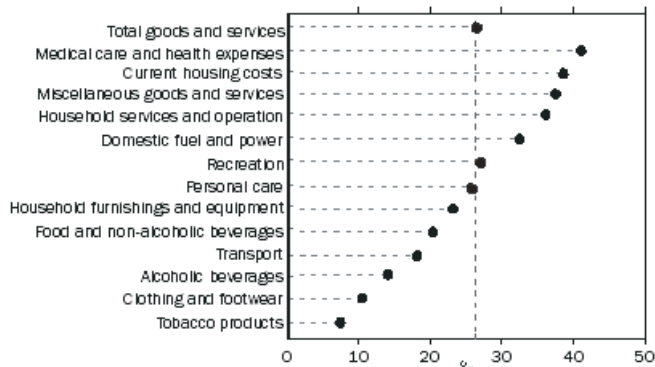
The overall increase in average weekly household expenditure on goods and services between 1998-99 and 2003-04 was \$184 or 26%. Over the same period the price of goods and services, as measured by the CPI, rose by 18%.

The broad expenditure categories recording the largest increases in dollar terms in average weekly expenditure were:

- Current housing costs (selected dwelling), up \$38 (39%), due in part to increased mortgage interest payments, up \$12 (47%) and increased rent payments, up \$9 (23%)
- food and non-alcoholic beverages, up \$26 (20%)
- recreation, up \$24 (27%)
- transport, up \$21 (18%), with increases in the purchase of both motor vehicles and petrol (16% and 26% respectively)
- miscellaneous goods and services, up \$21 (37%), partly due to increased spending on interest payments on selected credit services (excluding loan payments for selected dwelling), up \$8 (79%).

At the more detailed expenditure items level (see **Household Expenditure Survey, Detailed Items, 2003-04** (cat no. 6535.0.55.001), some of the most significant spending increases over the 5 year period were on mobile phone charges (up 183%), interest payments on mortgages (up 47%), health practitioners' fees (up 44%), education fees (up 41%), child care (up 34%), health and accident insurance (up 34%), domestic fuel and power (up 32%) and petrol (up 26%).

INCREASE IN AVERAGE WEEKLY EXPENDITURE ON GOODS AND SERVICES 1998-99 TO 2003-04



About this Release

ABOUT THIS RELEASE

Contains summary information on expenditure, income and characteristics of households. Emphasis is given to highlighting the different weekly expenditure patterns of households with various characteristics (e.g. income levels and sources, geographic location and family composition of the household).

Explanatory Notes

Explanatory Notes

INTRODUCTION

1 This publication presents a summary of the findings from the 2003-04 Household Expenditure Survey (HES). The survey collected detailed information about the expenditure, income, assets, liabilities and household characteristics of households resident in private dwellings throughout Australia. **Appendix 1** outlines the full 2003-04 HES data release program and expected release dates.

2 The statistics in this publication present a broad overview of data items collected during the 2003-04 HES. Emphasis has been given to highlighting the differing household expenditure patterns and levels revealed when average weekly household expenditure is cross-classified by various household characteristics (e.g. income levels and sources, geographic location and family composition of the household) and reference person characteristics.

3 The **2003-04 Household Expenditure Survey and Survey of Income and Housing, Australia: User Guide**, expected to be released in October 2005, will assist users in evaluating and interpreting results from this survey.

4 The 2003-04 HES commenced field enumeration throughout Australia in July 2003. Field enumeration was completed in June 2004. Further information concerning the 2003-04 survey will be included in the **2003-04 User Guide**. Previous Household Expenditure Surveys were conducted in 1974-75, 1975-76, 1984, 1988-89, 1993-94 and 1998-99.

Changes in this issue

5 The major change in the 2003-04 HES has been the collection of a more comprehensive range of household assets and liabilities to enable not only analysis of net worth and its components across households, but to analyse household expenditures in the context of their net worth. The survey has also been integrated with the 2003-04 Survey of Income and Housing (SIH). By aligning common data items, and ensuring that all data items required for the SIH were also collected in the HES, it has been possible to include the HES sample of 6,957 households as part of the SIH sample of 11,361 households.

6 Respondent burden is lower than if the two surveys were not integrated. Also, the resultant dataset is richer because HES and SIH results are more comparable than previously. This improvement is particularly important when considering the comprehensive wealth data that was collected for the first time as part of the 2003-04 SIH.

7 Although the HES and the SIH are integrated, the estimates for common items published in both this publication and the SIH publication **Household Income and Income Distribution, Australia, 2003-04** (cat. no. 6523.0) are unlikely to have exactly the same values, unless calibrated to do so (see below). The estimates in this publication are taken only from the HES subsample. They are therefore subject to greater sampling variability than the full SIH estimates, but have been included here because it is considered that they are more appropriate for comparisons with the expenditure data items, which are only available for the HES sub-sample.

8 Results from the 2003-04 HES also included:

- an expanded range of questions to collect details about income - in particular, information is collected about expected income in the current financial year from own unincorporated business and investments, and therefore current period estimates for these components of income no longer depend on data collected with respect to the previous financial year
- calibration of the sample weights to a revised set of independent demographic benchmarks plus calibration to SIH estimates of tenure type and SIH estimates of household income by state and territory and broad source of income - see Survey Methodology below
- household net worth data in most tables, and the introduction of a new table showing expenditure by net worth quintile
- equivalised disposable household income as an additional indicator of a household's relative wellbeing when compared to other households of different size and composition - see Concepts and Definitions below
- the replacement of the data item "household composition" with the data item "family composition of household", which better meets user requirements for the treatment of households with dependent children
- the replacement of the household characteristic "source of income" with "principal source of household income"
- tables showing expenditure on each of the broad expenditure groups as a proportion of total goods and services expenditure
- the restructure of the tables so that they closely resemble the tables in **Household Income and Income Distribution, Australia, 2003-04 (cat. no. 6523.0)**, thereby facilitating comparison between the two datasets
- a small number of additional commodities, such as set top boxes.

9 The redefinition of some HES income items so that they are aligned with the corresponding SIH data items results in some loss of comparability between 1998-99 and 2003-04 HES data. The main data items affected are:

- income from wages and salaries no longer includes income from bonuses (including leave loading); in 2003-04 these bonuses averaged \$13.55 per week per household
- income no longer includes the value of selected goods and services provided free or at reduced cost by employers to employees for their own private use or goods and services obtained from a person's own unincorporated business (in the 1998-99 HES, the value of incidental items such as food and motor vehicle fuel reported in the diaries were included); in 2003-04 the value of such goods and services averaged \$1.30 per week per household
- income no longer includes the income of children aged under 15 years; this income averaged \$0.30 per week per household in 2003-04
- income tax liability estimates are now derived only using data items available in the SIH.

CONCEPTS AND DEFINITIONS

10 The concepts and definitions relating to income, expenditure, net worth and households are described in the following section. Other definitions are included in the **glossary**.

Households

11 The household is the basic unit of analysis in the HES. It is defined as a group of related or unrelated people who usually live in the same dwelling and make common provision for food and other essentials of living; or a lone person who makes provision for his or her own food and other essentials of living without combining with any other person.

12 Households therefore have the following characteristics:

- they may consist of one or more person(s) or groups of persons such as families
- they must live wholly within one physical dwelling. A group of people who make common provision for living essentials but are living in two separate dwellings are considered to be two separate households.

13 The household is adopted as the basic unit of analysis because it is assumed that sharing of the use of goods and services occurs at this level. If smaller units, say persons, are adopted, then it is difficult to know how to attribute to individual household members the use of shared items such as food, accommodation and household goods.

Expenditure

14 The HES aggregate estimates of expenditure on goods and services refer to:

- the cost of acquiring goods and services - the cost of those goods and services acquired during the reference period regardless of whether the household paid for or consumed them during the period
- the cost of goods and services used for private purposes - costs associated with investments and business were excluded from estimates of expenditure
- net or out-of-pocket expenditure - refunds and reimbursements (such as Medicare refunds, factory rebates, trade-ins and reimbursements from employers) were deducted from expenditure
- expenditure during and prior to the 2003-04 financial year - most types of expenditure relate to purchases recorded in a fortnightly diary at some point within the 2003-04 financial year but less frequent and often large expenditures were collected on a 'recall' basis: for those items, households were asked to recall expenditures over a period which may have extended back before 2003-04, ranging from the last payment made (e.g. for utilities bills) to any purchase made in the last three years (e.g. for house purchases)
- some expenditure in-kind - items provided free or at a reduced cost by employers to employees for their own private use or withdrawn from own business for household consumption are regarded as expenditure in-kind; only incidental items of expenditure in-kind such as food and motor vehicle fuel reported in the diaries have been included in aggregate expenditure, averaging \$1.30 per week per household; however other expenditure in-kind items such as provision of vehicles, housing and assistance with telephone calls were collected and are available separately if required.

15 Estimates of selected other payments (income tax, mortgage repayments (selected dwelling) and superannuation and life insurance) are also provided.

16 Estimates of average weekly expenditure do not refer to a given week. Average weekly expenditure was calculated by dividing expenditure by the number of weeks in the recall period or reporting period over which it was collected.

17 Expenditure was classified according to the Household Expenditure Classification. A copy of the classification will be included in **2003-04 Household Expenditure Survey and Survey of Income and Housing, Australia: User Guide**.

Income

18 Household expenditure is compared to household income to help explain variations in expenditure levels and patterns and to identify groups of special interest (e.g. households with low incomes).

19 Income refers to regular and recurring cash receipts from employment, investments and transfers from government, private institutions and other households. Gross income is the sum of the income from all these sources before income tax and the Medicare levy have been deducted.

20 Sources from which income may be received include:

- wages and salaries (whether from an employer or own corporate enterprise)
- profit/loss from own unincorporated business (including partnerships)
- investment income (interest, rent, dividends, royalties)
- government pensions and allowances
- private cash transfers (e.g. superannuation, regular workers' compensation, income from annuities, child support, and other transfers from other households).

21 Receipts which are excluded from income because they are not regular or recurring cash payments include the following:

- income in kind including employee benefits such as the provision of a house or a car and employer contributions to pension and superannuation funds - however, income in-kind provided as part of a negotiated salary sacrifice arrangement can be regarded as cash or "near cash" income and included within the scope of income presented in this publication; it is estimated that about two thirds of salary sacrificed income is included in the 2003-04 HES estimate of gross income
- capital transfers such as inheritances and legacies, maturity payments on life insurance policies, lump sum compensation for injuries or other damage
- capital gains and losses.

22 Income is collected using a number of different reporting periods, such as the whole financial year for own unincorporated business and investment income, and the usual payment for a period close to the time of interview for wages and salaries, other sources of private income and government pensions and allowances. The income reported is divided by the number of weeks in the reporting period. Estimates of weekly income in this publication therefore do not refer to a given week within the reference period of the survey.

Equivalised disposable income

23 In most tables in this publication, gross household income (as described in the previous paragraphs) is presented along with expenditure estimates. However, when using income as an approximate means of ranking households according to the relative standards of living, it is more appropriate to use equivalised disposable income.

24 Disposable income is derived by deducting estimates of personal income tax and the Medicare levy from gross income. Disposable income better represents the economic resources available to meet the needs of households. Disposable income is then adjusted by the application of an equivalence scale to facilitate comparison of income levels between households of differing size and composition, reflecting the requirement of a larger household to have a higher level of income to achieve the same standard of living as a smaller household. Where disposable income is negative, it is set to zero equivalised disposable income. For more information on equivalised income see **Household Income and Income Distribution, Australia, 2003-04** (cat. no. 6523.0).

25 While equivalised disposable household income generally provides a useful indicator of economic wellbeing, there are some circumstances which present particular difficulties. Some households report extremely low and even negative income in the survey, which places them well below the safety net of income support provided by social security pensions and allowances. Households may underreport their incomes in the survey at all income levels, including low income households. However, households can correctly report low levels of income if they incur losses in their unincorporated business or have negative returns from their other investments.

26 Studies of income and expenditure from the 1998-99 HES have shown that such households in the bottom income decile and with negative gross incomes tend to have expenditure levels that are comparable to those of households with higher income levels (and slightly above the average expenditures recorded for the fifth decile), indicating that these households have access to economic resources, such as wealth, or that the instance of low or negative income is temporary, perhaps reflecting business or investment start up. Other households in the bottom income decile in the 1998-99 HES had average incomes at about the level of the single pension rate, were predominantly single person households, the average age of the reference person was 53 years, and their principal source of income was largely government pensions and allowances. However, on average, these households also had expenditures above the average of the households in the second decile, which is not inconsistent with the use of assets to maintain a higher standard of living than implied by their incomes alone. Therefore it can be reasonably concluded that most are unlikely to be suffering extremely low levels of economic wellbeing, and certain income analysis may lead to inappropriate conclusions if such households are included. For this reason, tables presenting statistics classified by equivalised disposable household income quintile include a category comprising the second and third deciles, which can be used as an alternative to the lowest income quintile.

27 With the 2003-04 HES, analysis of the households in the bottom decile can be improved through the direct observation of the net worth of these households. On average, the household net worth in the bottom decile was \$307,000, 18% above the average net worth of households in the second decile, reinforcing the view that the low relative incomes of these households are not a good indicator of their economic wellbeing. Those households in the bottom decile with zero or negative gross income had average household net worth of \$446,000, and average equivalised household expenditures of \$580 per week, above the average expenditure recorded in the sixth decile. The average equivalised household expenditure of all households in the bottom decile was \$341 per week, 8% above the average expenditure in the second decile, again reinforcing the view that the economic wellbeing of the households in the bottom equivalised income decile are not well reflected in their income level.

Net worth

28 Net worth, often referred to as wealth, is the value of a household's assets less the value of its liabilities. Assets can take many forms including:

- produced tangible fixed assets that are used repeatedly and for more than one year, such as dwellings and their contents, vehicles, and machinery and equipment used in businesses owned by households
- intangible fixed assets such as computer software and artistic originals
- business inventories of goods
- non-produced assets such as land
- financial assets such as bank deposits, shares, superannuation account balances, and the outstanding value of loans made to other households or businesses.

29 Liabilities are primarily the value of loans outstanding including:

- credit card debt
- mortgages
- investment loans
- borrowings from other households
- debt on other loans such as personal loans to purchase vehicles, and HECS.

30 In the 2003-04 HES, some asset and liability data were collected on a net basis rather than collecting for each component listed above. In particular, if a survey respondent owned or part owned a business, they were asked how much they would receive if they sold their share of the business and paid off any outstanding debts.

31 While this publication provides some household net worth statistics, principally to aid expenditure analysis, a more comprehensive range of household asset and liability information will be released in December 2005 in a new publication **Household Wealth and Wealth Distribution, 2003-04**.

Difference between income and expenditure

32 The HES provides information about both the income and the expenditure of households, but it would be misleading to regard the difference between average weekly income and the sum of the items of average weekly expenditure as shown in the tables in this publication as a measure of savings.

33 First, to be properly understood, the concept of household saving needs to be articulated along with the concept of household wealth (assets and liabilities), and all forms of income and expenditure need to be measured and classified consistently with these concepts. The HES does not attempt to do this. For example, it does not provide information about capital gains or windfall gains such as inheritances. Rather, it focuses on the regular and recurring forms of income; expenditure on current consumption of goods and services; the major component of regular current transfers (income tax); and two major items of expenditure which can be regarded as investment ('mortgage repayments - principal (selected dwelling)' and 'superannuation and life insurance'). The two items of investment expenditure are included in the HES because they are a significant regular commitment of many households which have to be financed from regular income.

34 Second, there are significant timing differences between the different components of income and expenditure collected:

- expenditure does not cover all current payments because expenditure was collected on an acquisitions basis
- income does not cover all current receipts because it was collected on a usual receipts basis
- expenditure does not cover a common reference period since expenditure estimates for different items refer to different periods
- income does not cover a common reference period since income estimates for different sources of income

refer to different periods; for example, income from wages and salaries relates to usual pay in a pay period, while income from investment and own unincorporated business relates to expected income in the current financial year.

35 HES income and expenditure estimates therefore do not balance for individual households or groups of households and the difference between income and expenditure cannot be considered to be a measure of saving.

SURVEY METHODOLOGY

Scope and coverage

36 The survey collects information by personal interview from usual residents of private dwellings in urban and rural areas of Australia, covering about 98% of the people living in Australia. Private dwellings are houses, flats, home units, caravans, garages, tents and other structures that were used as places of residence at the time of interview. Long-stay caravan parks are also included. These are distinct from non-private dwellings which include hotels, boarding schools, boarding houses and institutions. Residents of non-private dwellings are excluded.

37 The survey also excludes:

- households which contain members of non-Australian defence forces stationed in Australia
- households which contain diplomatic personnel of overseas governments
- households in collection districts in the Northern Territory defined as very remote or Indigenous Communities which account for about 23% of the territory's population.

Data collection

38 Information for each household was collected using:

- a household level computer assisted interview questionnaire which collected information on household characteristics, expenditure common to all household members (e.g. health service payments), and irregular or infrequent expenditure (e.g. household appliances and holidays overseas)
- an individual level computer assisted interview questionnaire which collected information on income and other personal characteristics from each usual resident aged 15 years and over
- a personal diary in which usual residents aged 15 years and over recorded their expenditure over two weeks.

39 Sample copies of the above documents are available upon request and will be included in the **User Guide 2003-04** to be released in October 2005.

Sample design

40 The sample was designed to produce reliable estimates for broad aggregates for households resident in private dwellings aggregated for Australia, for each state and for the capital cities in each state and territory. More detailed estimates should be used with caution, especially for Tasmania, the Northern Territory and the Australian Capital Territory (see **Appendix 2**).

41 The HES sample was designed in conjunction with the SIH. In the combined sample, some dwellings were selected to complete both the SIH questionnaire and the HES questionnaire, while other dwellings were selected to complete the SIH questionnaire only. Dwellings were selected through a stratified, multistage cluster design. Selected clusters were split such that approximately one third of households in the cluster received only the SIH questionnaire and two thirds of households in the cluster received both the SIH and HES questionnaires. Selections were distributed randomly across a twelve month enumeration period so that the survey results are representative of income and expenditure patterns across the year.

Non-responding households

42 Of the 9,753 households selected in the sample, 2,796 did not respond at all to the questionnaire, or did not respond adequately. Such households included:

- households affected by death or illness of a household member
- households in which the significant person(s) in the household did not respond because they could not be

- contacted, had language problems or refused to participate
- households in which the significant person(s) did not respond to key questions or did not adequately complete an expenditure diary.

Partial response and Imputation

43 Some other households did not supply all the required information but supplied sufficient information to be retained in the sample. Such partial response occurs when:

- income or other data in a questionnaire are missing from one or more non-significant person's records because they are unable or unwilling to provide the data
- all key questions are answered by the significant person(s) but other questions are not answered
- not every person aged 15 or over residing in the household responds but the significant person(s) provide answers to all key questions
- diaries are not all fully completed, but sufficient information is provided.

44 In the first and second cases of partial response above, the data provided are retained and the missing data are imputed by replacing each missing value with a value reported by another person (referred to as the donor).

45 For the third type of partial response, the data for the persons who did respond are retained, and data for each missing person are provided by imputing data values equivalent to those of a fully responding person (donor).

46 For the fourth type of partial response, the diary information provided is used to represent the missing information. For example, if the first week of diary entries is provided but not the second week then the first week of expenditure is used to represent expenditure for the second week.

47 Donor records are selected by finding fully responding persons with matching information on various characteristics, such as state, sex, age, labour force status, income and expenditure, as the person with missing information. As far as possible, the imputed information is an appropriate proxy for the information that is missing. Depending on which values are to be imputed, donors are randomly chosen from the pool of individual records with complete information for the block of questions where the missing information occurs.

Final sample

48 The final sample on which estimates were based, is composed of households for which all necessary information is available. The information may have been wholly provided at the interview (fully-responding) or may have been completed through imputation for partially responding households. Of the selected dwellings, there were 9,753 in the scope of the survey, of which 6,957 (71%) were included as part of the final HES estimates. The final sample consists of those 6,957 households, comprising 13,748 persons aged 15 years old and over. The final sample includes 2,185 households which had at least one imputed value in either income, assets and liabilities or expenditure reported in the household questionnaire. Nearly 60% of these households, in fact, had only a single value missing and most of these were for superannuation assets or a minor source of income for the household.

HES FINAL SAMPLE: NUMBER OF HOUSEHOLDS, 2003-04

	Capital city no.	Balance of state no.	Total no.
New South Wales	1,199	545	1,744
Victoria	1,087	445	1,532
Queensland	579	308	887
South Australia	581	283	864
Western Australia	475	254	729
Tasmania	416	139	555
Northern Territory	301	76	377
Australian Capital Territory	269	-	269
Australia	4,907	2,050	6,957

- nil or rounded to zero (including null cells)

Weighting

49 Weighting is the process of adjusting results from a sample survey to infer results for the total in scope population whether that be persons, households or income units. To do this, a 'weight' is allocated to each sample unit e.g. a person, a household or an income unit. The weight is a value which indicates how many population units

are represented by the sample unit. The first step in calculating weights for each unit is to assign an initial weight, which is the inverse of the probability of being selected in the survey. For example, if the probability of a household being selected in the survey was 1 in 600, then the household would have an initial weight of 600 (that is, it represents 600 households).

50 The initial weights are then calibrated to align with independent estimates of the population of interest, referred to as 'benchmarks'. Weights calibrated against population benchmarks ensure that the survey estimates conform to the independently estimated distribution of the population rather than to the distribution within the sample itself.

51 The HES survey was benchmarked to the in scope estimated resident population (ERP), the estimated number of households in the population, and to a number of income estimates produced from the SIH which was run over the same period.

52 Four types of benchmarks are used in the calibration of the final weights:

- numbers of persons aged 15 and over
- numbers of children under age 15
- numbers of households
- estimates of income and tenure type produced from the 2003-04 SIH.

53 Person benchmarks for persons aged 15 and over are estimates of the number of people in each state and territory by age and sex, the number of people in each state and the ACT by labour force status and the number of people in each state living in the capital city or the balance of the state.

54 A separate set of benchmarks is used for children under 15, since there are not individual person records for them in the survey. Information about children is recorded on household records, however, and benchmarks for the number of children aged 0-4 and aged 5-14 are used for each state and territory.

55 Numbers of households are calibrated to benchmarks for total Australia with respect to household composition (based on the number of adults (1, 2 or 3) and whether or not the household contains children).

56 The person and household benchmarks are based on estimates of numbers of persons and households in Australia. The benchmarks are adjusted to include persons and households residing in private dwellings only and therefore do not, and are not intended to, match estimates of the Australian resident population published in other ABS publications.

57 The fourth type of benchmark relates to estimates of tenure type and income produced from the 2003-04 SIH. The SIH estimates were included as benchmarks to increase the comparability between the surveys and to improve the reliability of income estimates produced from the HES survey. The following SIH estimates were used as benchmarks at the state level, in addition to the population benchmarks presented above:

- total weekly household income from all sources
- current weekly household income from own unincorporated business
- current weekly household income from wages and salaries
- current weekly household income from government pensions and allowances
- household tenure type.

58 This means that estimates produced using the HES sample for these variables will be the same as the estimates produced using the SIH sample at the state level.

Estimation

59 Estimates produced from the survey are usually in the form of averages (e.g. average weekly household expenditure on clothing and footwear), or counts (e.g. total number of households that own their dwelling). For counts of households, the estimate was obtained by summing the weights for the responding households in the required group (e.g. those households that own their dwelling).

60 Averages are obtained by adding the weighted household values, and then dividing by the estimated number of households. For example, average weekly expenditure on clothing and footwear by Victorian households is the

weighted sum of the average weekly expenditure of each selected household in Victoria who reported such expenditure, divided by the estimated number of households in Victoria. Note that the denominator is the total number of households and not just the number of households which reported expenditure on a particular item.

61 Income tax payments were estimated for all households using taxation criteria for 2003-04 and the income and other characteristics of household members reported in the survey.

Reliability of estimates

62 The estimates provided in this publication are subject to two types of error, non-sampling and sampling error.

Non-sampling error

63 Non-sampling error can occur in any collection, whether the estimates are derived from a sample or from a complete collection such as a census. Sources of non-sampling error include non-response, errors in reporting by respondents or recording of answers by interviewers, and errors in coding and processing the data.

64 Non-sampling errors are difficult to quantify in any collection. However, every effort is made to reduce non-sampling error to a minimum by careful design and testing of the questionnaire, training of interviewers and data entry staff, and extensive editing and quality control procedures at all stages of data processing.

65 One of the main sources of non-sampling error is non-response by persons selected in the survey. Non-response occurs when people cannot or will not cooperate or cannot be contacted. Non-response can affect the reliability of results and can introduce a bias. The magnitude of any bias depends upon the level of non-response and the extent of the difference between the characteristics of those people who responded to the survey and those who did not.

66 The following methods were adopted to reduce the level and impact of non-response:

- face-to-face interviews with respondents
- the use of interviewers who could speak languages other than English, where necessary
- follow-up of respondents if there was initially no response
- imputation of missing values
- ensuring that the weighted data is representative of the population (in terms of demographic characteristics) by aligning the estimates with population benchmarks.

Sampling error

67 The estimates are based on a sample of possible observations and are subject to sampling variability. The estimates may therefore differ from the figures that would have been produced if information had been collected for all households. A measure of the sampling error for a given estimate is provided by the standard error, which may be expressed as a percentage of the estimate (relative standard error). Further information on sampling error is given in **Appendix 2**.

ACKNOWLEDGEMENT

68 ABS publications draw extensively on information provided freely by individuals, businesses, governments and other organisations. Their continued cooperation is very much appreciated: without it, the wide range of statistics published by the ABS would not be available. Information received by the ABS is treated in strict confidence as required by the **Census and Statistics Act 1905**.

PUBLICATION AND DISSEMINATION OF DATA

69 Information about the range of data to be made available from the 2003-04 HES is given in **Appendix 1**.

RELATED PUBLICATIONS

70 Users may wish to refer to the following related ABS products which relate to income:

Household Expenditure Survey, Australia: Detailed Expenditure Items, 2003-04, cat. no. 6535.0.55.001

Household Income and Income Distribution, Australia, 2003-04, cat. no. 6523.0

Household Income and Income Distribution, Australia - Detailed Tables, cat. no. 6523.0.55.001
Housing Occupancy and Costs, Australia, cat. no. 4130.0.55.001

Government Benefits, Taxes and Household Income, Australia, 1998-99, cat. no. 6537.0

Household Wealth and Wealth Distribution, Australia, 2003-04, a new publication to be released in December 2005

Labour Force, Australia, cat. no. 6202.0 - issued monthly

Average Weekly Earnings, Australia, cat. no. 6302.0

Measuring Wellbeing: Frameworks for Australian Social Statistics, 2001, cat. no. 4160.0

Measures of Australia's Progress, 2004, cat. no. 1370.0

71 The HES and SIH User Guide is expected to be released in October 2005.

Glossary

Average weekly expenditure

Value obtained by dividing the estimated weekly expenditure of a group of households by the estimated number of households in the group.

Broad expenditure group

The broadest level of the Household Expenditure Classification used in the 2003-04 survey. A list of the detailed expenditure items making up each broad expenditure group will be included in the 2003-04 User Guide.

Capital cities

Australia's six state capital city statistical divisions and the Darwin statistical division. For the Australian Capital Territory the estimates relate predominantly to urban areas.

Collection district

The census Collection District (CD) is the smallest geographic area defined in the **Australian Standard Geographical Classification** (cat. no. 1216.0).

Consumer Price Index (CPI)

A general measure of price inflation for the household sector in Australia. Specifically, it provides a measure of changes, over time, in the cost of a constant basket of goods and services acquired by the capital city households in Australia.

Couple family with dependent children

One family household consisting of a couple with at least one dependent child. The household may also include non-dependent children, other relatives and unrelated individuals.

Couple

Two people in a registered or de facto marriage, who usually live in the same household.

Decile

Groupings that result from ranking all households or people in the population in ascending order according to some characteristic such as their household income and then dividing the population into 10 equal groups, each comprising 10% of the estimated population.

Dependent children

All persons aged under 15 years; and people aged 15-24 years who are full-time students, have a parent in the household and do not have a partner or child of their own in the household.

Disposable income

Gross income after income tax and the Medicare levy are deducted and family tax benefit paid through the tax system or as a lump sum by Centrelink is added. Income tax and the Medicare levy are imputed based on each person's income and other characteristics as reported in the survey. Family tax benefit is estimated on the basis of reductions in pay-as-you-go tax payments, as reported in the survey, or imputed on the basis of each family's income and composition. Disposable income is sometimes referred to as net income.

Employed persons

Persons aged 15 years and over who, during the week before the interview:

- worked one hour or more for pay, profit, commission or payment in kind in a job or business, or on a farm (includes employees, employers and own account workers)
- worked one hour or more, without pay, in a family business or on a family farm
- had a job, business or farm but was not at work because of holidays, sickness or other reason.

Employee

An employed person who, for most of his/her working hours:

- works for a public or private employer and receives remuneration in wages or salary, or is paid a retainer fee by his/her employer and works on a commission basis, or works for an employer for tips, piece-rates or payment in kind
- operates his or her own incorporated enterprise with or without hiring employees.

Employer

A person who operates his or her own unincorporated economic enterprise or engages independently in a profession or trade, and hires one or more employees.

Equivalised disposable household income

Disposable household income adjusted using an equivalence scale. For a lone person household it is equal to disposable household income. For a household comprising more than one person, it is an indicator of the disposable household income that would need to be received by a lone person household to enjoy the same level of economic wellbeing as the household in question.

Expenditure

The cost of goods and services acquired during the reference period for private use, whether or not the goods were paid for or consumed. Expenditure is net of refunds. For example, payments for health services are net of any refunds received or expected to be received. Expenditure is classified according to the **Household Expenditure Classification** which contains over 600 detailed items.

Family

Two or more people, one of whom is at least 15 years of age, who are related by blood, marriage (registered or de facto), adoption, step or fostering, and who usually live in the same household. A separate family is formed for each married couple, or for each set of parent-child relationships where only one parent is present.

Family composition of household

Classifies households into three broad groupings based on the number of families present (one family, multiple family and non-family). One family households are further disaggregated according to the type of family (such as couple family or one parent family) and according to whether or not dependent children are present. Non-family households are disaggregated into lone person households and group households.

Full-time student

A person 15 years or over who is classified as a full-time student by the institution they attend, or considers himself/herself to be a full-time student. Full-time study does not preclude employment.

Government pensions and allowances

Income support payments from government to persons under social security and related government programs. Included are pensions and allowances received by aged, disabled, unemployed and sick persons, families and children, veterans or their survivors, and study allowances for students. Sometimes referred to as government benefits transfers. All overseas pensions and benefits are included here, although some may not be paid by overseas governments. The one-off payment to seniors paid in 2000-01 and the one-off payments to families and carers paid in 2003-04 are included. Family tax benefit is also regarded as income, although for practical reasons family tax benefit paid through the tax system or as a lump sum by Centrelink is only included under disposable income, and not gross income.

Gross income

Regular cash receipts before income tax or the Medicare levy are deducted.

Group household

A household consisting of two or more unrelated people where all people are aged 15 years and over. There are no reported couple relationships, parent-child relationships or other blood relationships in these households.

Household

A group of related or unrelated people who usually live in the same dwelling and make common provision for food and other essentials of living; or a lone person who makes provision for his or her own food and other essentials of living without combining with any other person.

Household Expenditure Classification (HEC)

The expenditure classification used in the **Household Expenditure Survey**. In the 2003-04 survey it consists of over 600 items at the most detailed level. At the broadest level it consists of 17 broad expenditure groups. All broad groups except **other capital housing costs** are presented in this publication. A copy of the classification will be included in the 2003-04 User Guide.

Income

Regular and recurring cash receipts including moneys received from wages and salaries, government pensions and allowances, and other regular receipts such as superannuation, workers' compensation, child support, other transfers from other households, scholarships, profit or loss from own unincorporated business or partnership and investment income. Gross income is the sum of the income from all these sources before income tax or the Medicare levy are deducted. Other measures of income are disposable income and equivalised disposable income. Note that child support and other transfers from other households are not deducted from the incomes of the households making the transfers.

Labour force status

Classifies all people aged 15 years and over according to whether they were employed, unemployed or not in the labour force.

Landlord type

For renters, the type of entity to whom rent is paid or with whom the tenure contract or arrangement is made. Renters belong to one of the following categories:

- state/territory housing authority - where the household pays rent to a state or territory housing authority or trust
- private landlords - where the household pays rent to a real estate agent or to another person not in the same household
- other - where the household pays rent to the owner/manager of a caravan park, an employer (including a government authority), a housing cooperative, a community or church group, or any other body not included elsewhere.

Lone person household

A household consisting of a person living alone.

Mean income

The total income received by a group of units divided by the number of units in the group.

Multiple family household

A household containing two or more families. Unrelated individuals may also be present.

Negative expenditure

Occurs if a household's receipts for a good or service (e.g. refunds, trade-ins, sales or successful insurance claims), over a specific period, exceeds the cost of acquisitions. For example, if a household sold a car in the previous 12 months and did not buy a replacement car or they bought a less expensive car, this household would report negative expenditure on cars.

Negative income

Income may be negative when a loss accrues to a household as an owner or partner in unincorporated enterprises or rental properties. Losses occur when operating expenses and depreciation are greater than gross receipts.

Net worth

Net worth is the value of a household's assets less the value of its liabilities. For further information refer to paragraphs 28 to 31 in **Explanatory Notes**.

Non-dependent children

All people aged 15 years and over who:

- do not have a spouse or offspring of their own in the household
- have a parent in the household
- are not full-time students aged 15-24 years.

Non-family household

Consists of unrelated people only. A non-family household can be either a person living alone or a group household.

Not in the labour force

Persons not in the categories employed or unemployed as defined.

One family household

A household containing only one family. Unrelated individuals may also be present.

One parent family with dependent children

A one family household comprising a lone parent with at least one dependent child. The household may also include non-dependent children, other relatives and unrelated individuals.

Other one family household

A household comprising:

- one couple with their non-dependent children only
- one couple, with or without non-dependent children, plus other relatives
- one couple, with or without non-dependent children or other relatives, plus unrelated individuals
- a lone parent with his/her non-dependent children, with or without other relatives and unrelated individuals, or
- two or more related individuals where the relationship is not a couple relationship or a parent-child relationship (e.g. two brothers).

Other income

Income other than wages and salaries, own business or partnership income and government pensions and allowances. This includes income received as a result of ownership of financial assets (interest, dividends), and of non-financial assets (rent, royalties) and other regular receipts from sources such as superannuation, child support, workers' compensation and scholarships. Income from rent is net of operating expenses and depreciation and may be negative when these are greater than gross receipts.

Other landlord type

Where the household pays rent to the owner/manager of a caravan park, an employer (including a government authority), a housing cooperative, a community or church group, or any other body not included elsewhere.

Other tenure type

A household which is not an owner, a purchaser or a renter.

Own account worker

A person who operates his or her own unincorporated economic enterprise or engages independently in a profession or trade and hires no employees.

Own unincorporated business income

The profit/loss that accrues to persons as owners of, or partners in, unincorporated enterprises. Profit/loss consists of the value of gross output of the enterprise after the deduction of operating expenses (including depreciation). Losses occur when operating expenses are greater than gross receipts and are treated as negative income.

Owner (of dwelling)

A household in which at least one member owns the dwelling in which it usually resides. Owners are divided into two classifications - owners without a mortgage and owners with a mortgage. If there is any outstanding mortgage or loan secured against the dwelling the household is an owner with a mortgage. If there is no mortgage or loan secured against the dwelling the household is an owner without a mortgage.

Principal source of income

That source from which the most positive income is received. If total income is nil or negative the principal source is undefined.

Private income

Regular, recurring receipts from private organisations, including superannuation, regular workers' compensation, income from annuities, interest, dividends, royalties, income from rental properties, scholarships and child support.

Quintiles

Groupings that result from ranking all households or people in the population in ascending order according to some characteristic such as their household income and then dividing the population into five equal groups, each comprising 20% of the estimated population.

Reference person

The reference person for each household is chosen by applying, to all household members aged 15 years and over, the selection criteria below, in the order listed, until a single appropriate reference person is identified:

- one of the partners in a registered or de facto marriage, with dependent children
- one of the partners in a registered or de facto marriage, without dependent children
- a lone parent with dependent children
- the person with the highest income
- the eldest person.

For example, in a household containing a lone parent with a non-dependent child, the one with the higher income will become the reference person. However, if both individuals have the same income, the elder will become the reference person.

Relative standard error (RSE)

The standard error expressed as a percentage of the estimate for which it was calculated. It is a measure which is independent of both the size of the sample, and the unit of measurement and as a result, can be used to compare the reliability of different estimates. The smaller an estimate's RSE, the more likely it is that the estimate is a good

proxy for that which would have been obtained if the whole population had been surveyed.

Renter

A household which pays rent to reside in the dwelling. See further classification by Landlord type.

Selected dwelling

The private dwelling selected in the sample for the survey. See the **Explanatory Notes** for details of types of dwellings and how they are selected for this survey.

Significant person

Significant persons are defined as follows:

- all members of a lone person or couple only household
- all parents in a couple with children household or a single parent household
- the person aged 15 years or over in an unrelated persons household where one person is aged 15 years or over and the other members of the household are less than 15 years old
- 50% of the persons aged 15 years and over in all other households.

Standard error

A measure of the likely difference between estimates obtained in a sample survey and estimates which would have been obtained if the whole population had been surveyed. The magnitude of the standard error associated with any survey is a function of sample design, sample size and population variability.

Tenure type

The nature of a household's legal right to occupy the dwelling in which the household members usually reside. Tenure is determined according to whether the household owns the dwelling outright, owns the dwelling but has a mortgage or loan secured against it, is paying rent to live in the dwelling or has some other arrangement to occupy the dwelling.

Unemployed persons

Persons aged 15 years and over who were not employed during the week before the interview and

- had actively looked for full-time or part-time work at any time in the four weeks before the interview and:
 - were available for work in the week before the interview, or would have been available except for temporary illness (i.e. lasting for less than four weeks before the interview), or
 - were waiting to start a new job within four weeks from the interview and would have started in the week before the interview if the job had been available then

or

- were waiting to be called back to a full-time or part-time job from which they had been stood down without pay for less than four weeks before the interview for reasons other than bad weather or plant breakdown.

Unincorporated business

A business in which the owner(s) and the business are the same legal entity, so that, for example, the owner(s) are personally liable for any business debts that are incurred.

Wages and salaries

The gross cash income received as a return to labour from an employer or from a person's own incorporated business.

Wealth

See Net worth.

Abbreviations

The following abbreviations have been used in this publication

ABS	Australian Bureau of Statistics
ACT	Australian Capital Territory
Aust.	Australia
CD	Collection District
CPI	Consumer Price Index
CURF	Confidentialised Unit Record File
ERP	estimated resident population
HECS	Higher Education Contribution Scheme
HES	Household Expenditure Survey
NSW	New South Wales
NT	Northern Territory
Qld	Queensland
RADL	Remote Access Data Laboratory
RSE	relative standard error
SA	South Australia
SE	standard error
SIH	Survey of Income and Housing
Tas.	Tasmania
Vic.	Victoria
WA	Western Australia

Appendix

APPENDIX 1 2003–04 HES DATA RELEASE PROGRAM

APPENDIX 2 SAMPLING VARIABILITY

APPENDIX 1 2003–04 HES DATA RELEASE PROGRAM

2003-04 HES DATA RELEASE PROGRAM

This appendix describes the range of data to be made available from the 2003-04 HES. More detailed information can also be obtained by telephoning the HES contact officer on Canberra (02) 6252 6174.

PUBLICATIONS

The publications to be produced from the 2003-04 HES are listed below. Publication tables can also be provided in spreadsheet format.

Summary of Results (Cat no. 6530.0) contains summary tables of the 2003-04 HES results. Includes tables of expenditure on broad categories of goods and services by household income quintile group; principal source of income; state of residence; household composition; tenure type; and characteristics of the reference person.

Detailed Expenditure Items (Cat no. 6535.0.55.001) contains tables of expenditure at the finest level of detail for

goods and services (over 600 categories). Tables are cross classified by income quintile, state/territory and capital city.

User Guide describes the 2003-04 Household Expenditure Survey (HES) definitions concepts, methodology and estimation procedures. It also contains the Household Expenditure Classification and a list of the HES output data items. Expected to be released in October 2005.

The Effects of Government Benefits and Taxes on Household Income (Cat. no. 6537.0) describes the results of a study which uses HES data in conjunction with other data such as government finance statistics to calculate the effects of government benefits and taxes on household income. Provides estimates of government cash benefits received (e.g. age pension and unemployment benefits), personal taxes paid, indirect benefits received (from government spending on health, education and housing) and indirect taxes paid (e.g. petrol and alcohol taxes) for households, classified by selected characteristics. Expected to be released in June 2006.

While this publication provides some household net worth statistics, principally to aid income analysis, a more comprehensive range of household asset and liability information will be released in December 2005 in a new publication **Household Wealth and Wealth Distribution, 2003-04**.

RESULTS FOR STATES

A set of tables equivalent to the main tables in this publication are available in Excel format for each state and territory (subject to standard error and confidentiality constraints and excluding time series tables) and Australia. These tables will be available from the ABS web site <www.abs.gov.au> or from the ABS upon request.

UNIT RECORD FILE

It is expected that a confidentialised unit record file (CURF) from the 2003-04 SIH will be released on CD-ROM in October 2005. It is also expected that a more detailed SIH CURF will be available through the ABS Remote Access Data Laboratory. A full range of up-to-date information about the availability of ABS CURFs and about applying for access to CURFs is available via the ABS web site <www.abs.gov.au> (see Services We Provide, Confidentialised Unit Record Files (CURFs)). Inquiries to the ABS CURF Management Unit should email: curf.management@abs.gov.au, or telephone (02) 6252 5853.

SPECIAL TABULATIONS

As well as releasing publications and standard products, the ABS can make available special tabulations. Subject to confidentiality and standard error constraints, tabulations can be produced from the survey incorporating data items, populations and geographic areas selected to meet individual requirements. These can be provided in printed form, or in spreadsheets sent by email or on CD-ROM.

The published data are only a small portion of the data collected in the survey. It is also not the only way the HES data can be presented. A wide range of data items is available for specific data requests. The detailed list of possible data items is contained in a data item list which will be released as part of the **2003-04 Household Expenditure Survey, Australia: User Guide** (Cat. no. 6527.0).

The main expected areas of interest are:

- detailed expenditure items
- general household characteristics
- household income
- household net worth
- income and personal characteristics of household members
- details of separate mortgages held by the household
- data relating to personal loans
- government benefits and income taxes
- details of geographic areas.

APPENDIX 2 SAMPLING VARIABILITY

INTRODUCTION

The estimates in this publication are based on information obtained from the occupants of a sample of dwellings. Therefore, the estimates are subject to sampling variability and may differ from the figures that would have been produced if information had been collected for all dwellings. One measure of the likely difference is given by the standard error (SE), which indicates the extent to which an estimate might have varied because only a sample of dwellings was included. There are about two chances in three that the sample estimate will differ by less than one SE from the figure that would have been obtained if all dwellings had been included, and about 19 chances in 20 that the difference will be less than two SEs. Another measure of the likely difference is the relative standard error (RSE), which is obtained by expressing the SE as a percentage of the estimate.

For estimates of population sizes, the size of the SE generally increases with the level of the estimate, so that the larger the estimate the larger the SE. However, the larger the sampling estimate the smaller the SE in percentage terms (RSE). Thus, larger sample estimates will be relatively more reliable than smaller estimates.

In the tables in this publication, only estimates with RSEs of 25% or less are considered reliable for most purposes. Estimates with RSEs greater than 25% but less than or equal to 50% are preceded by an asterisk (e.g. *3.4) to indicate they are subject to high SEs and should be used with caution. Estimates with RSEs of greater than 50%, preceded by a double asterisk (e.g. **0.3), are considered too unreliable for general use and should only be used to aggregate with other estimates to provide derived estimates with RSEs of 25% or less.

Space does not allow for the separate indication of the SE of all the estimates in this publication. RSEs for all tables are provided on the ABS web site <<https://www.abs.gov.au>> (see Statistics: Access to all ABS products and statistics, including AusStats, Publication and Data, Data Cubes, 65. Consumer income and expenditure, 6523.0), with the RSEs for **table 1** also included as **table A13**. The RSEs have been derived using the group jackknife method.

RSES OF COMPARATIVE ESTIMATES

Proportions and percentages

Proportions and percentages, which are formed from the ratio of two estimates, are also subject to sampling errors. The size of the error depends on the accuracy of both the numerator and the denominator. For proportions where the denominator is an estimate of the number of households in a grouping and the numerator is the number of households in a sub-group of the denominator group, the formula for the RSE is given by

$$RSE\left(\frac{x}{y}\right) = \sqrt{[RSE\%(x)]^2 + [RSE\%(y)]^2}$$

Differences between estimates

The difference between survey estimates is also subject to sampling variability. An approximate SE of the difference between two estimates (x-y) may be calculated by the formula:

$$SE(x-y) = \sqrt{[SE(x)]^2 + [SE(y)]^2}$$

This approximation can generally be used whenever the estimates come from different samples, such as two estimates from different years or two estimates for two non-intersecting subpopulations in the one year. If the estimates come from two populations, one of which is a subpopulation of the other, the standard error is likely to be lower than that derived from this approximation, but there is no straightforward way of estimating how much lower.

A1 RELATIVE STANDARD ERRORS (%) FOR TABLE 25, STATES AND TERRITORIES - ALL HOUSEHOLDS - Household expenditure

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
	%	%	%	%	%	%	%	%	%

Average weekly expenditure
Broad expenditure group

Goods and services									
Current housing costs (selected dwelling)	2.4	2.7	3.9	3.1	6.2	4.2	4.9	5.3	1.4
Domestic fuel and power	1.7	1.5	2.5	2.3	2.0	3.3	4.2	4.7	0.9
Food and non-alcoholic beverages	1.4	1.4	2.0	1.8	2.4	2.9	3.7	3.2	0.6
Alcoholic beverages	4.9	4.7	5.9	5.7	6.4	8.4	7.2	9.5	2.5
Tobacco products	5.4	5.7	10.2	9.2	8.9	14.2	12.7	12.9	3.3
Clothing and footwear	4.5	4.5	6.5	7.4	7.1	8.7	16.6	8.2	2.6
Household furnishings and equipment	6.1	5.1	7.6	6.4	7.9	12.7	11.4	11.6	2.6
Household services and operation	2.0	2.2	2.7	3.1	4.0	3.4	5.2	5.2	1.2
Medical care and health expenses	5.3	7.6	3.5	3.5	4.5	4.6	6.6	7.6	2.7
Transport	4.4	3.9	4.7	4.9	5.5	10.1	8.9	6.7	1.9
Recreation	2.7	3.0	4.6	6.6	5.7	5.3	15.2	7.6	1.8
Personal care	3.7	3.8	4.9	5.1	6.0	6.2	10.1	11.5	1.9
Miscellaneous goods and services	4.2	4.8	6.0	7.0	5.8	7.8	11.1	8.7	2.0
Total goods and services expenditure	1.5	1.5	1.9	2.2	2.8	2.9	5.8	2.8	0.8
Selected other payments									
Income tax	3.2	3.5	3.0	5.0	3.6	4.9	7.6	4.5	1.7
Mortgage repayments - principal (selected dwelling)	5.4	6.1	11.5	8.7	6.3	13.7	11.8	15.0	3.7
Superannuation and life insurance	9.2	7.0	15.2	13.1	13.3	28.1	15.3	10.5	4.7
Proportion of total goods and services expenditure									
Broad expenditure group									
Goods and services									
Current housing costs (selected dwelling)	2.3	2.3	3.4	3.0	5.6	4.7	4.4	4.7	1.2
Domestic fuel and power	2.1	2.0	2.5	2.2	2.9	4.1	4.8	4.9	1.0
Food and non-alcoholic beverages	1.3	1.4	1.8	2.5	1.6	2.9	3.5	3.4	0.7
Alcoholic beverages	4.5	4.2	5.6	5.5	5.9	8.5	6.7	9.6	2.2
Tobacco products	6.0	5.9	10.1	9.4	9.4	13.5	12.9	13.4	3.3
Clothing and footwear	3.9	4.0	6.1	6.7	6.9	7.8	15.0	8.4	2.3
Household furnishings and equipment	5.8	5.2	6.9	6.3	7.4	11.9	9.9	10.7	2.5
Household services and operation	2.0	2.2	2.1	3.0	3.9	3.6	5.5	5.2	1.2
Medical care and health expenses	5.0	7.2	3.3	3.6	4.0	4.7	5.6	7.0	2.5
Transport	3.6	3.4	4.4	3.7	4.1	8.6	6.2	6.1	1.5
Recreation	2.5	2.6	4.2	5.4	4.4	5.0	11.5	6.4	1.4
Personal care	3.4	3.5	4.9	4.8	5.4	5.8	8.0	11.2	1.9
Miscellaneous goods and services	3.8	4.2	5.2	6.3	4.4	6.6	8.3	7.5	1.7
Total goods and services expenditure	-	-	-	-	-	-	-	-	-

- nil or rounded to zero (including null cells)

A2 RELATIVE STANDARD ERRORS (%) FOR TABLE 26, STATES AND TERRITORIES - ALL HOUSEHOLDS - Household characteristics

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
	%	%	%	%	%	%	%	%	%
Mean gross household income per week	1.7	1.9	1.7	2.6	2.1	2.3	4.9	2.9	0.9
Mean household net worth	3.4	4.5	6.3	4.2	4.8	5.5	13.8	5.3	1.8
Proportion of households with characteristic									
Principal source of household income									
Zero or negative income	42.5	39.3	53.2	46.6	43.6	86.6	71.8	-	19.3
Wages and salaries	1.4	1.5	2.6	2.8	2.6	3.7	2.9	3.3	0.9
Own unincorporated business income	10.2	9.8	9.1	12.5	12.1	20.2	23.6	27.5	5.1
Government pensions and allowances	3.3	3.0	4.0	3.8	5.5	4.2	12.6	12.1	1.6
Other income	6.7	7.5	15.8	9.1	16.3	17.6	25.4	16.1	4.4
Total	-	-	-	-	-	-	-	-	-
Contribution of government pensions and allowances to gross household income									
Nil or less than 1%	1.8	2.1	3.1	3.2	3.5	6.1	4.2	4.1	0.9
1% to less than 20%	4.6	4.4	5.4	6.8	8.6	11.9	9.4	13.2	2.3
20% to less than 50%	9.2	7.5	11.1	11.5	10.6	19.4	20.6	23.8	3.9
50% to less than 90%	7.6	8.2	11.3	10.1	10.1	14.7	19.7	27.8	3.9
90% and over	4.4	4.4	6.6	5.5	8.0	7.4	17.7	16.7	2.5
Total	-	-	-	-	-	-	-	-	-
Tenure and landlord type									
Owner without a mortgage	2.4	2.1	3.5	3.3	3.5	3.7	9.4	6.1	1.2
Owner with a mortgage	2.8	2.1	3.4	3.5	3.1	5.0	6.2	6.3	1.3
Renter									
State/territory housing authority	13.9	15.3	18.3	13.7	19.5	20.5	23.4	21.6	6.6
Private landlord	4.8	5.2	5.7	7.6	6.3	10.5	12.2	13.4	2.4
Other landlord type	22.5	37.9	31.5	26.9	34.4	50.6	33.1	58.5	13.8
Total renters	3.9	3.9	4.8	5.7	5.0	7.0	8.4	8.4	1.9
Other tenure type	18.0	14.5	20.7	24.7	22.6	47.6	23.3	51.0	9.5
Total	-	-	-	-	-	-	-	-	-
Family composition of household									
One family households									
Couple family with dependent children	2.6	2.9	4.4	3.9	4.8	6.5	10.0	7.3	1.2
One parent family with dependent children	7.2	8.8	10.4	12.9	13.0	15.8	18.9	19.8	3.0
Couple only	3.3	3.6	3.9	4.7	5.3	7.5	9.2	9.0	1.1
Other one family households	6.2	7.6	11.3	11.8	10.8	23.3	15.9	25.5	3.0
Multiple family households	17.9	25.0	36.7	39.0	54.1	80.6	47.1	-	12.2

Non-family households									
Lone person	3.4	3.6	3.7	3.8	5.7	8.2	11.9	10.0	-
Group households	15.2	16.5	20.0	20.5	22.7	34.2	29.8	27.0	7.8
Total	-	-	-	-	-	-	-	-	-
Average age of reference person	0.4	0.4	0.5	0.6	0.6	0.8	1.2	1.0	0.2
Average number in household									
Employed persons	0.6	0.7	0.7	1.0	1.1	1.3	3.6	2.1	-
Dependent children	1.6	1.5	2.7	2.0	2.9	3.2	3.9	4.3	0.7
Persons									
Under 18 years	1.2	1.4	2.4	1.9	2.4	2.7	4.0	4.4	0.6
18 to 64 years	0.8	0.8	1.1	1.2	1.2	1.7	3.1	2.3	0.2
65 years and over	0.6	0.7	0.7	1.0	1.1	1.3	19.5	2.1	-
Total	0.6	0.7	0.7	1.0	1.1	1.3	2.8	2.1	-
Estimated number in population									
Households	0.6	0.7	0.7	1.0	1.1	1.3	2.8	2.1	-
Persons	-	-	-	-	-	-	-	-	-

- nil or rounded to zero (including null cells)

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